

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059464

Luminaire Tested: S123RDR-H1000D935-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059464
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D935-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

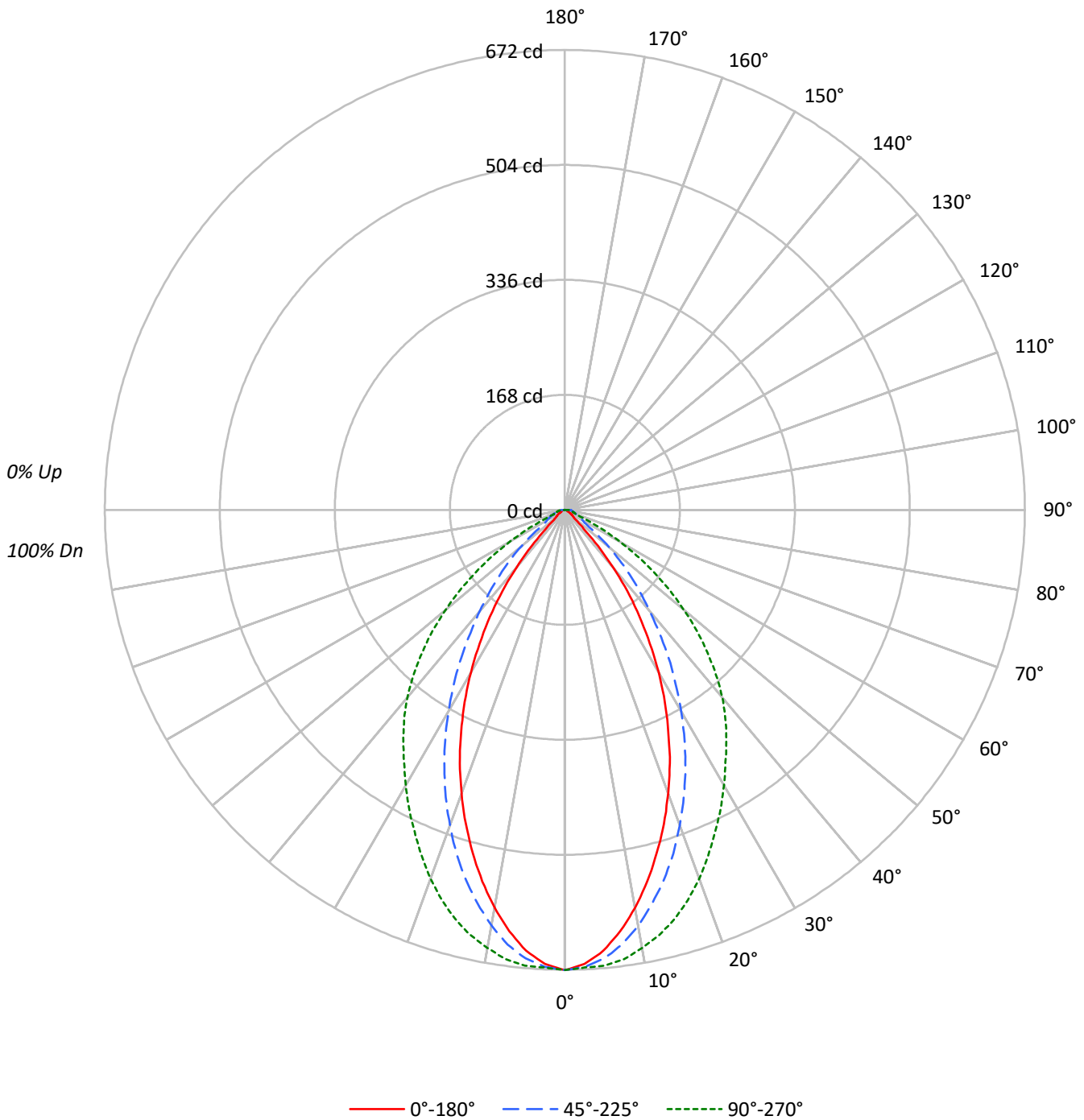
Lumens per Lamp: N/A
Luminaire Lumens: 807.8 lumens
Efficiency: N/A
Efficacy: 25.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									20									20
RC	80									70									50									30									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0																
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																												
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81																												
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73																												
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66																												
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60																												
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55																												
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50																												
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46																												
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43																												
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7897	7897	7897
5°	7624	7757	7879
10°	7037	7356	7749
15°	6313	6800	7525
20°	5512	6129	7170
25°	4636	5395	6728
30°	3722	4601	6302
35°	2726	3789	5896
40°	1686	2948	5485
45°	649	2220	4884
50°	320	1522	4132
55°	252	841	3241
60°	169	700	2172
65°	142	628	972
70°	141	566	566
75°	186	608	558
80°	277	764	629
85°	418	1253	835

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4884 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	7.6
10°-20°	157.9	19.5
20°-30°	195.9	24.3
30°-40°	175.5	21.7
40°-50°	115.4	14.3
50°-60°	57.8	7.2
60°-70°	22.8	2.8
70°-80°	12.8	1.6
80°-90°	8.1	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	415.4	51.4
0°-40°	590.9	73.2
0°-60°	764.1	94.6
0°-90°	807.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	807.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	672	672	672	672	672	
5°	647	657	658	662	668	60
15°	519	536	559	597	619	145
25°	358	380	416	475	519	164
35°	190	216	264	346	411	118
45°	39	65	134	225	294	37
55°	12	14	41	111	158	11
65°	5	14	23	29	35	5
75°	4	13	13	12	12	4
85°	3	9	9	9	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	672.5	672.5	672.5	672.5	672.5
2.5°	664.2	673.5	668.4	668.4	669.4
5°	646.8	657.0	658.1	662.2	668.4
7.5°	621.1	634.4	640.6	652.9	662.2
10°	590.2	604.6	616.9	638.5	649.9
12.5°	556.3	570.7	589.2	619.0	636.5
15°	519.3	535.7	559.4	597.4	619.0
17.5°	481.2	497.7	526.5	569.6	597.4
20°	441.1	459.6	490.5	539.8	573.8
22.5°	401.0	421.6	454.5	508.0	547.0
25°	357.8	380.5	416.4	475.0	519.3
27.5°	316.7	340.3	378.4	442.1	492.5
30°	274.5	298.2	339.3	408.2	464.8
32.5°	231.4	258.1	301.3	376.3	437.0
35°	190.2	215.9	264.3	345.5	411.3
37.5°	150.1	175.8	226.2	315.7	385.6
40°	110.0	136.8	192.3	286.9	357.8
42.5°	72.0	99.7	162.5	258.1	327.0
45°	39.1	64.8	133.7	225.2	294.1
47.5°	21.6	35.0	108.0	194.3	262.2
50°	17.5	19.5	83.3	165.5	226.2
52.5°	14.4	16.5	59.6	137.8	193.3
55°	12.3	14.4	41.1	111.1	158.3
57.5°	10.3	12.3	32.9	85.3	124.4
60°	7.2	12.3	29.8	62.7	92.5
62.5°	6.2	12.3	25.7	43.2	61.7
65°	5.1	14.4	22.6	28.8	35.0
67.5°	4.1	14.4	19.5	18.5	18.5
70°	4.1	14.4	16.5	15.4	16.5
72.5°	4.1	15.4	15.4	14.4	14.4
75°	4.1	13.4	13.4	12.3	12.3
77.5°	4.1	12.3	12.3	11.3	11.3
80°	4.1	11.3	11.3	10.3	9.3
82.5°	4.1	10.3	10.3	9.3	8.2
85°	3.1	9.3	9.3	9.3	6.2
87.5°	3.1	8.2	9.3	8.2	5.1
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.00	0.88	0.00	1.19	1.51	13.72	14.98	14.09	15.29	15.61
	3H	2.15	3.26	2.53	3.60	3.96	13.80	14.91	14.18	15.25	15.61
	4H	3.32	4.36	3.72	4.71	5.09	13.86	14.90	14.27	15.25	15.64
	6H	4.37	5.32	4.78	5.69	6.08	13.96	14.91	14.38	15.29	15.68
	8H	4.91	5.81	5.34	6.20	6.60	14.02	14.92	14.46	15.31	15.72
	12H	5.39	6.25	5.83	6.64	7.07	14.09	14.95	14.53	15.34	15.77
4H	2H	2.89	3.92	3.29	4.28	4.66	13.58	14.62	13.99	14.97	15.35
	3H	5.36	6.20	5.77	6.61	7.01	13.76	14.60	14.17	15.01	15.41
	4H	6.71	7.46	7.14	7.88	8.33	13.88	14.64	14.32	15.06	15.51
	6H	7.83	8.49	8.30	8.93	9.40	14.10	14.75	14.56	15.20	15.67
	8H	8.34	8.95	8.81	9.40	9.87	14.23	14.84	14.70	15.28	15.76
	12H	8.80	9.34	9.29	9.83	10.30	14.39	14.93	14.87	15.41	15.89
8H	4H	7.62	8.23	8.09	8.68	9.15	13.89	14.50	14.36	14.95	15.42
	6H	9.22	9.72	9.72	10.21	10.70	14.22	14.72	14.72	15.22	15.70
	8H	10.05	10.50	10.57	11.01	11.51	14.45	14.90	14.97	15.42	15.91
	12H	10.83	11.23	11.35	11.73	12.30	14.78	15.18	15.29	15.67	16.24
12H	4H	7.79	8.33	8.28	8.81	9.29	13.88	14.42	14.36	14.90	15.37
	6H	9.53	9.98	10.06	10.50	10.99	14.25	14.70	14.77	15.22	15.71
	8H	10.55	10.95	11.06	11.44	12.01	14.56	14.96	15.08	15.46	16.03